

REMARKS

The present amendment is submitted in response to the Office Action dated December 27, 2002, which set a three-month period for response, making this amendment due by March 27, 2003.

Claims 1-6 are pending in this application.

In the Office Action, listing of the references in the specification was objected to as an improper information disclosure statement. The drawings and specification were objected to for various informalities. Claims 1 through 6 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,095,575 to Wulf. It was noted further that claims 2-6 were not examined on their merits, due to the rejection for indefiniteness.

Turning first to the objections to the figures, the two views in original Figure 1 have been separately labeled as Figures 1 and 2.

Regarding the objections to the specification, the specification has been amended to add appropriate headings.

With regard to the objection that no abstract was submitted, the abstract of the disclosure is contained on page 8 of the application as originally filed. In this amendment, however, the abstract has been amended to combine the two paragraphs into a single paragraph and to eliminate improper claim-type language.

Looking now at the rejection of the claims as indefinite, the Applicants have cancelled claims 1-6 and added new claims 7-11. These new claims more clearly define the present invention by providing proper antecedent basis for the claimed elements and to eliminate the narrative form of the claims.

In addition, new claims 7-11 more clearly define the present invention over the cited reference to Wulf by reciting a patentably distinct set of features neither disclosed nor suggested by this reference.

As defined in independent claim 7, which includes the features of original claim 2 describing how the exhaust heat exchanger is emptied, a gas reservoir is connected at a high point of the coolant ducts, from which, when the shutoff device is closed and an upper limit temperature of the coolant is reached, gas is directed into the coolant ducts. The gas displaces the coolant from the heat exchanger.

The known exhaust gas heat exchanger of the prior art lies above the coolant level and is fed during the heating phase from the coolant pump. If the coolant supply is shut off, the heat exchanger empties independently via a drainage line in the coolant system, which for this purpose, has an overflow or expansion container. This process can take a substantial amount of time, while according to the present invention, the coolant is displaced very quickly by the gas from the heat exchanger.

In addition, the heat exchanger of the present invention can be arranged at a desired position, that is, beneath the fluid level of the coolant, since it is not emptied by the force of gravity, but essentially by the gas pressure. The

arrangement of the exhaust heat exchanger, therefore, is less restricted than that of the cited patent to Wulf.

Like Wulf, various other references were cited as relevant in the outstanding Office Action that were also cited in the international examination of the priority document to the present application.

DE 39 37 314 A is concerned with the overheating of an exhaust catalyzer with a full load. In order to avoid overheating, a cooler is provided before the exhaust catalyzer, in which coolant is injected when a critical exhaust temperature is reached, so that the exhaust is cooled by evaporative cooling. The evaporated coolant is condensed in the connected cooler of the internal combustion engine. If no coolant is injected, the evaporative cooler is empty and offers a good heat isolation of the exhaust collection pipe, which lies in front of the exhaust catalyzer. In this manner, the catalyzer achieves very quickly its operating temperature.

US Patent No. 2, 401, 510 relates to the storage of operating heat, in which it supplied the hot coolant from the cooler into a heat-isolated container by means of reduced pressure. Upon starting of the internal combustion engine, the warm coolant is released from the heat-isolating container again and into the cooler of the internal combustion engine.

U.S. Patent No. 4,126,108 A and U.S. Patent No. 2,175,121 do not relate to overheating of coolant, rather to the freezing of a cooler. For this purpose, the coolant is removed from the cooler at a corresponding temperature.

The further cited references in the Office Action do not appear to be relevant to the subject matter of the present invention.

For the reasons set forth above, the Applicants respectfully submit that new claims 7-11 are patentable over the cited reference to Wulf. The Applicants further request withdrawal of the rejection under 35 U.S.C. 102, and reconsideration of the application as herein amended.

The Examiner has not considered the Information Disclosure Statement filed October 16, 2001 because the list of references may not be incorporated into the specification, but must be submitted in a separate paper.

The Information Disclosure Statement does represent a separate list of the references. The specification may be used to explain the relevancy of a foreign language document:

"The concise explanation may be either separate from the specification or incorporated therein..."

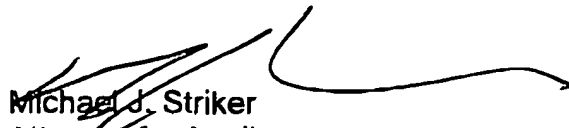
The references appear at page 1 line 23 and page 2 line 12 of the specification. Consideration of the Information Disclosure Statement is respectfully requested.

In light of the foregoing arguments in support of patentability, the Applicants respectfully submit that this application stands in condition for allowance. Action to this end is courteously solicited.

Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss

appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,



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